Mars life

To discuss ...

- What did we just discover about life on Earth..? *(Discovered in 1998..!)*

  -- There may be twice as much life on Earth as we thought there was – with strange microbes living inside the earth, even in the rocks.

- How do you think this will change the way we look for life on other planets..?

  -- We'll do some digging, and try to find other ways to look far beneath the surface of Mars, or any other world we happen to visit.
  -- We now know life can exist in many places we never thought it could.

- This kind of life is very small. What are "microbes" or "microorganisms"..?

  -- The smallest of living things. Too small to see without a microscope.
  A few are bacteria that can make you sick. But most are helpful and also necessary for life on Earth. They help us digest our food and recycle everything in Nature, which helps to keep our air and water clean.
  (So far, we don't know much about the microbes that live inside the Earth, or what they do, except we know they're harmless to us.)

- What did we find to make scientists think there may be life underground on Mars?

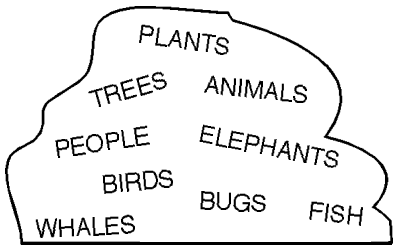
  -- Discovered what may be a microbe on a rock that was buried on Mars.

- A scientist discovered the Mars rock in Antarctica. How did it get there..?

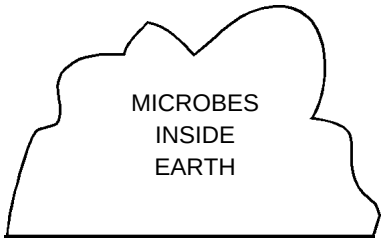
  -- Best guess is that an asteroid crashed into Mars a long time ago, blasted some rocks into space, and some of them eventually landed on Earth.

To do ...

- Draw a simple diagram on the blackboard to show the two "piles" of life that scientists use to illustrate how much life may be buried underground.
  Ask your students to help remember this example.



ONE PILE IS ALL THE LIFE ON EARTH WE KNEW ABOUT BEFORE WE DISCOVERED THE UNDERGROUND LIFE.



ONE PILE IS ALL THE MICROBES WE JUST DISCOVERED ARE BURIED UNDERGROUND.

SCIENTISTS NOW BELIEVE THE TWO PILES WOULD BE ABOUT THE SAME SIZE..!

- In 1998, we discovered there may be twice as much life on Earth as we thought..!
  Is anybody surprised about how many things we don't know..?
  What does this tell us about science..? About how much is left to discover..?